

**The Knowledge Bank at The Ohio State University**

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# THE OHIO STATE ENGINEER



Vol. XXIV

No. 1

NOVEMBER, 1940

FIFTEEN CENTS

MEMBER OF THE ENGINEERING COLLEGE  
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# KNOW YOUR BEARINGS

## *—be a better engineer*



**W**HEN you receive your diploma and enter upon your career as a mechanical engineer you will find a sound knowledge of bearing design and application one of your most valuable assets.

Wherever wheels and shafts turn, every piece of mechanical equipment has its own bearing requirements. It will be part of your job to analyze these requirements and prescribe bearings to meet them.

It is particularly important that you have a thorough understanding of the design and advantages of the tapered roller bearing on account of its versatility and wide range of application.

This bearing has been developed to an extremely high degree of efficiency by The Timken Roller Bearing Company during the past 42 years, with the result that more TIMKEN Tapered Roller Bearings are now used in all kinds of industrial machinery than any other bearings.

Write for a copy of the 184 page Timken Reference Manual—a complete text book of tapered roller bearing design and application.

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**THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO**

# Why Anti-Friction Bearings?

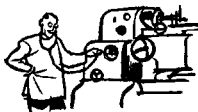
**BECAUSE** wherever wheels or shafts turn in modern machinery, anti-friction bearings do these 10 things:



1. Reduce friction . . . . .



2. Reduce wear . . . . .



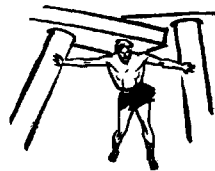
3. Prolong life of machinery . . . . .



4. Increase accuracy . . . . .



5. Reduce maintenance . . . . .



6. Resist loads from all directions.



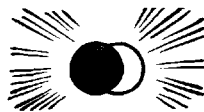
7. Permit high speed operation . . .



8. Simplify design . . . . .



9. Allow accurate inter-changeability.

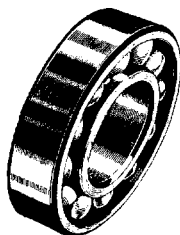


10. Give assured performance . . . . .

These are the reasons for using anti-friction bearings . . . for using *ball* bearings . . . for using New Departure ball bearings.

New Departure, a Division of General Motors, Bristol, Connecticut, U. S. A.

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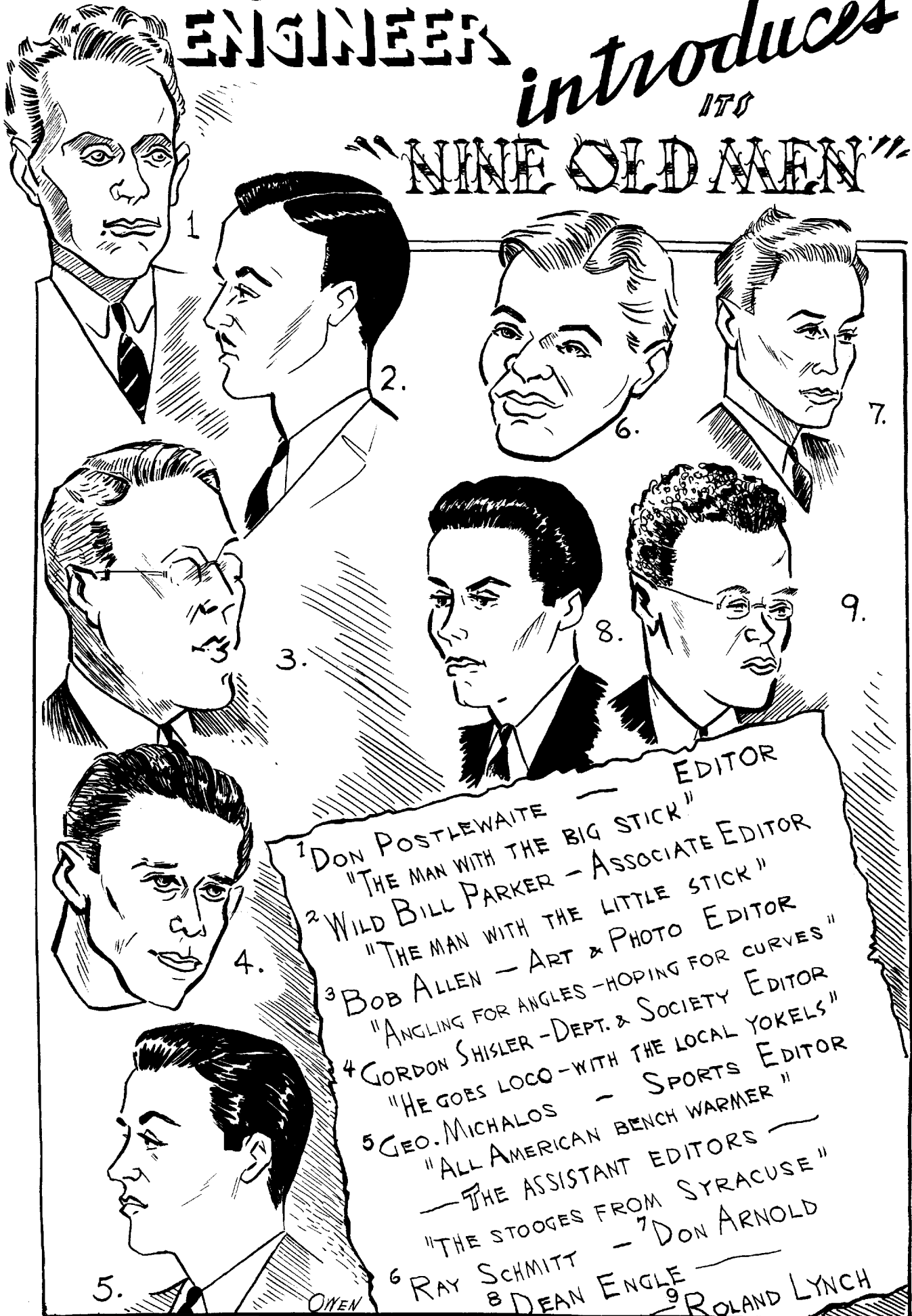
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*introduces*  
ITS

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